

IN THE CLAIMS

1. (Currently Amended) A method for correcting web deformation during a roll-to-roll process comprising:
 - initiating a roll-to-roll process involving a flexible web substrate;
 - detecting web deformation in the flexible web substrate during the roll-to-roll process; and
 - dynamically ~~aligning~~ correcting the flexible web substrate based on the detected web deformation.
2. (Currently amended) The method of claim 1 wherein detecting web deformation in the flexible web substrate includes:
 - utilizing optical markings on the flexible web substrate to detect the web deformation;
 - comparing the detected web deformation with a desired deformation;
 - generating an error signal based on the comparison; and
 - generating a correction signal to be utilized to dynamically ~~align~~ correct the flexible web substrate.
3. (Currently amended) The method of claim 1 wherein dynamically ~~aligning~~ correcting the flexible web substrate includes:
 - utilizing controllable mechanical components to ~~align~~ correct the flexible web substrate based on the detected web deformation.
4. (Original) The method of claim 3 wherein the controllable mechanical components include steerable disks.
5. (Original) The method of claim 3 wherein the controllable mechanical components include spherical nips.

6. (Original) The method of claim 5 wherein each spherical nip includes a spring loaded counter roller.

7. (Original) The method of claim 3 wherein the controllable mechanical components include mechanical cross-rollers.

8. (Currently Amended) A system for correcting web deformation during a roll-to-roll process comprising:

means for initiating a roll-to-roll process involving a flexible web substrate;

means for detecting web deformation in the flexible web substrate during the roll-to-roll process; and

means for dynamically aligning correcting the flexible web substrate based on the detected web deformation.

9. (Currently amended) The system of claim 8 wherein the means for detecting web deformation in the flexible web substrate includes:

means for utilizing optical markings on the flexible web substrate to detect the deformation;

means for comparing the detected web deformation with a desired deformation;

means for generating an error signal based on the comparison; and

means for generating a correction signal to be utilized to dynamically align correct the flexible web substrate.

10. (Currently amended) The system of claim 8 wherein the means for dynamically aligning correcting the flexible web substrate includes:

means for utilizing controllable mechanical components to align correct the flexible web substrate based on the detected web deformation.

11. (Original) The system of claim 10 wherein the controllable mechanical components include steerable disks.
12. (Original) The system of claim 10 wherein the controllable mechanical components include spherical nips.
13. (Original) The system of claim 12 wherein each spherical nip includes a spring loaded counter roller.
14. (Original) The system of claim 10 wherein the controllable mechanical components include mechanical cross-rollers.
15. (Currently amended) A roll-to-roll processing system comprising:
 - a web rolling mechanism;
 - a flexible web substrate coupled to the web rolling mechanism;
 - a plurality of sensors configured to dynamically detect deformation in the flexible web substrate;
 - at least one controllable mechanical component coupled to the flexible web substrate; and
 - a computer system coupled to the plurality of sensors and the at least one controllable mechanical component wherein the computer system includes logic for detecting web deformation in the flexible web substrate; and
 - dynamically ~~aligning~~ correcting the flexible web substrate based on the detected deformation.
16. (Currently amended) The system of claim 15 wherein the logic for detecting deformations in the flexible web substrate includes logic for:
 - utilizing optical markings on the flexible web substrate to detect the deformation;
 - comparing the detected web deformation with a desired deformation;

generating an error signal based on the comparison; and
generating a correction signal to be utilized to dynamically ~~align~~ correct
the flexible web substrate.

17. (Currently amended) The system of claim 15 wherein the logic for
dynamically ~~aligning~~ correcting the flexible web substrate comprises logic for:
utilizing the at least one controllable mechanical component to ~~align~~
correct the flexible web substrate based on the detected web deformation.

18. (Original) The system of claim 17 wherein the at least one controllable
mechanical component includes steerable disks.

19. (Original) The system of claim 17 wherein the at least one controllable
mechanical component includes spherical nips.

20. (Original) The system of claim 19 wherein each spherical nip includes a
spring loaded counter roller.

21. (Original) The system of claim 17 wherein the at least one controllable
mechanical component includes mechanical cross-rollers.

22. (Currently amended) A computer program product for correcting web
deformation during a roll-to-roll process wherein the computer program product
includes a computer usable medium having computer readable program means for
causing a computer to perform the steps of:

initiating a roll-to-roll process involving a flexible web substrate;
detecting web deformation in the flexible web substrate during the
roll-to-roll process; and
dynamically ~~aligning~~ correcting the flexible web substrate based on
the detected web deformation.

23. (Currently amended) The computer program product of claim 22 wherein web detecting deformation in the flexible web substrate includes:

utilizing optical markings on the flexible web substrate to detect the deformation;

comparing the detected web deformation with a desired deformation;

generating an error signal based on the comparison; and

generating a correction signal to be utilized to dynamically ~~align~~ correct the flexible web substrate.

24. (Currently amended) The computer program product of claim 22 wherein dynamically ~~aligning~~ correcting the flexible web substrate includes:

utilizing controllable mechanical components to ~~align~~ correct the flexible web substrate based on the detected web deformation.

25. (Currently amended) A method for correcting web deformation during a roll-to-roll process comprising:

utilizing optical markings on a flexible web substrate to detect the deformation in the flexible substrate;

comparing the detected deformation with a desired deformation;

generating an error signal based on the comparison; and

generating a correction signal to be utilized to dynamically ~~align~~ correct the flexible web substrate; and

dynamically ~~aligning~~ correcting the flexible web substrate based on the correction signal.

26. (Currently amended) The method of claim 25 wherein dynamically ~~aligning~~ correcting the flexible web substrate comprises:

utilizing controllable mechanical components to ~~align~~ correct the flexible web substrate based on the detected web deformation.

27. (Original) The method of claim 26 wherein the controllable mechanical components include steerable disks.
28. (Original) The method of claim 26 wherein the controllable mechanical components include spherical nips.
29. (Original) The method of claim 28 wherein each spherical nip includes a spring loaded counter roller.
30. (Newly added) A method for correcting web deformation during a roll-to-roll process comprising:
- initiating a roll-to-roll process involving a flexible web substrate;
 - detecting web deformation in the flexible web substrate during the roll-to-roll process; and
 - utilizing controllable mechanical components to correct the flexible web substrate based on the detected web deformation wherein the controllable mechanical components include spherical nips wherein each spherical nip includes a spring loaded counter roller.